METHOD FOR PREVENTING INFECTION BY A VIRUS

RELATED APPLICATION

The present application is a continuation of U.S. patent application Ser. No. 12/949,458, filed on Nov. 18, 2010 (now U.S. Pat. No. 8,591,412 issuing Nov. 26, 2013). The present application is also a continuation of U.S. patent application Ser. No. 13/510,635, filed Jul. 2, 2012 (now U.S. Pat. No. 8,585,588, issuing Nov. 19, 2013), which is a national stage application under 35 U.S.C. 371 of PCT Application No. PCT/US2010/057248 having an international filing date of Nov. 18, 2010, which designated the United States. The above applications claimed the benefit of U.S. Application Ser. No. 61/262,337, filed Nov. 18, 2009, the entire disclosure of each of which is hereby incorporated herein by reference.

FIELD OF THE INVENTION

The present invention is directed to a method, system and kit for assisting individuals in avoiding undesired exposure to particular viral or bacterial agents associated with obesity, and more particularly, is directed to a method and system that employs a device that provides relevant information such that an individual can avoid undesired contact with surfaces that have viruses or bacteria thereon that may increase the risk of becoming obese and/or of being exposed to cancer related infectious agents.

BACKGROUND OF THE INVENTION

Obesity has risen dramatically in the U.S. and foreign countries during the past 30 years and the explanations therefore have ranged from the prevalence of fast-food, the lack of physical activity resulting from increased computer and TV use, etc. But certain data indicates that these factors are not the root cause of the obesity statistics. While the rise in caloric intake and decreased physical activity may play a part in the rise in obesity around the world, another significant factor that has not been adequately addressed is the incidence of obesity due to infection by certain bacterial or viral agents. The present invention is the first to appreciate this connection in a manner that provides a non-pharmaceutical (and thus safe) way to inexpensively address a root cause of obesity.

There are a number of weight control systems and methods to lose weight. A person can select a particular program designed to control the weight of that individual, including protocols involving exercise and diet activities. Such programs are difficult for individuals to adopt due to many factors, ranging from the need for persistent positive behaviors, economic wherewithal to join work-out establishments, the inability to maintain a healthy diet, etc. As a result, such programs often fail the individual, who then often subsequently become more despondent about weight and health issues. Knowing what causative factors may be involved in the weight gain of particular individuals could assist them in addressing how best to address their specific situation and to avoid ineffective regimens in an effort to reduce weight and obesity related diseases.

The problem of overweight individuals and obesity has now become a nation-wide problem for the USA. More than 60% of Americans (about 127 million adults) are overweight (see websites of American Obesity Association www.obesity.org, Centers for Disease Control www.cdc.gov, etc.). There has also been a dramatic simultaneous increase in the prevalence of obesity and of certain types of cancer. A worldwide

epidemic of obesity accelerated dramatically starting about 1980. In the USA the prevalence of obesity in adults more than doubled in the 20 years from 1980 to 2000 (from 15% to 31%), whereas the prevalence increased only slightly in the prior 20 years from 1960 to 1980 (from 13.5% to 15%). The prevalence of obesity in children tripled from about 1970 to 2000. Likewise, cancers of the breast, prostate, colon, and liver have also rapidly increased in prevalence in recent years.

On any given day people accumulate germs on their hands from a variety of sources. This can include many sources of germs such as direct contact with other people, contaminated surfaces such as tables, escalator handholds, foods, and even animals such as the family dog or cat. Subsequent to these contacts, if people don't wash their hands frequently and use the correct technique, they can easily infect themselves by touching their eyes, nose, mouth, or food. Further, failure to wash their hands will render a person a carrier who spreads germs to others by touching those people directly or by touching surfaces which others contact, such as doorknobs, faucets, counters, etc. As a consequence of inadequate hand hygiene, especially in children, infectious diseases are commonly spread from one person to another. Everything from the common cold and flu to gastrointestinal disorders, such as infectious diarrhea, are easily communicated from one person to the next.

Influenza (the flu) is a contagious disease that is caused by 3 viruses, influenza A, B and C. It attacks the respiratory tract (nose, throat, and lungs). The flu is different from a cold. While both are caused by viruses, high fever, headaches and extreme exhaustion are much more common with the flu. The flu can also cause serious complications such as bronchitis and pneumonia for certain high-risk groups. Influenza outbreaks occur in each hemisphere of the globe at least once a year and are responsible for hundreds of thousands of deaths around the world every year. Currently, between three and five million cases of severe illness and up to 500,000 deaths worldwide are attributable to the flu. Tens of millions of people died from flu epidemics in the 20^{th} century. New strains of flu virus appear almost every year or so. Approximately 36,000 deaths and more than 200,000 hospitalizations are directly associated with influenza every year in the United States. If a strain with similar virulence to the 1918 flu epidemic emerged today, experts predict that it could kill between 50 and 80 million people. In April 2009 a novel flu strain evolved that combined genes from human, pig, and bird flu. On Jun. 11, 2009, the World Health Organization officially declared the outbreak to be a pandemic. Every year in the US, 5% to 20% of the population gets the flu, and over 200,000 are hospitalized.

The economic ramifications of the flu and colds are enormous. Up to a billion colds a year occur in the U.S. alone, causing about 60 million lost days of school and 50 million lost days of work—adding up to $25 billion in lost productivity. Americans alone spend around $5 billion on over-the-counter remedies every year. The President's Council of Advisors on Science and Technology reports that of the expected 60 to 120 million Americans who will suffer from H1N1 symptoms, half of those cases are expected to seek medical attention, with as many as 1.8 million leading to hospitalization.

Inadequate hand hygiene and improper hand washing techniques also contribute to food-related illnesses, such as *salmonella* and *E. coli* infection. According to the Centers for Disease Control and Prevention (CDC), as many as 76 million Americans get a food-borne illness each year. Of these, about 5,000 die as a result of their illness. Others experience the annoying signs and symptoms of nausea, vomiting and diar-